THE AGRICULTURAL • SITUATION •

MARCH 1944

A Brief Summary of Economic Conditions

Issued Monthly by the Bureau of Agricultural Economics, United States Department of Agriculture

Subscription price, 50 cents per year; single copy, 5 cents; foreign price, 70 cents; payable in cash or money order to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

VOLUME 28 - NUMBER 3 - WASHINGTON, D. C.

IN THIS ISSUE

CASH FARM INCOME is far higher in this war period than during World War I. In 1943 it totaled 19.1 billion dollars, 31 percent more than the previous record in 1919, yet prices received by farmers averaged considerably lower in 1943, 19 percent for crops and 3 percent for livestock. The 1943 cash farm income was 24 percent above 1942. * * * This year's record livestock numbers probably mark the high point of the ascending trend of the past six years. Scarce feed is the chief factor in foreshortening this upward trend. * * * The 1943 farm wage rate index represented another record—264 percent of the 1910–14 average, 9 percent higher than in 1920. * * * Reduced baby chick purchases are probable this year, although later developments in egg-feed-price relationships may brighten the picture somewhat. * * * Cotton consumption during the 1943–44 season will be about 10 million bales or 10 percent less than in the 1942–43 season. Cotton prices in central markets during February were the highest since last July. Total fats and oils production in 1944 may reach 11.2 billion pounds, 300 million more than in 1943. Stocks are larger than a year ago, and increased imports are anticipated.

Commodity Reviews

FARM INCOME

LAST YEAR saw the biggest cash farm income on record—19.1 billion dollars. This amount, surpassing the previous record in 1919 by 31 percent, is comprised of 7.9 billion dollars from crops, 3 percent more than in 1919, and 11.2 billion dollars from livestock, 62 percent above the 1919 figure. The 1943 cash income was 24 percent higher than 1942.

Production in this war period has greatly exceeded that during World War I; in 1943 crop production was 23 percent above 1919, while livestock production had increased by 53 percent. Prices for crops, however, averaged 19 percent lower in 1943, and livestock prices were 3 percent lower.

Income from all crops was higher in 1943 than in 1942, with relatively largest gains being made by fruits, vegetables and oil-bearing crops. Larger returns were derived for all types of livestock in 1943 than in 1942, with poultry and eggs showing the largest relative increases.

Increased prices accounted for larger income in some cases; larger sales were responsible in others. For example, although production of oil-bearing crops was only 3 percent greater in 1943 than a year earlier, a much larger quantity was sold because the 1942 crop, of which much was sold in 1943, exceeded by 76 percent the 1941 production, a large proportion of which was sold in 1942.

Differences in weather, growing conditions, and economic factors created variations in farm income changes throughout the country. Individual States showed increases ranging from 48 percent in Florida and 42 percent in Arizona to 8 percent in Oklahoma.

Kansas and Oklahoma were the only States with smaller incomes from crops in 1943 than in 1942. The 20 percent decreases in Oklahoma was due primarily to spring floods, and fall and winter drought.

Crop income rose more than 50 percent in Arizona, Florida, Connecticut, and Maine, and over 40 percent in North Dakota. Increases of 30 to 40 percent occurred in Iowa, New Jersey, Colorado, California, Montana, Nebraska, South Dakota, Massachusetts, Minnesota, and Oregon.

Throughout the country income from livestock marketings amounted to 24 percent more in 1943 than in 1942. Bigger than average increases took place in two groups of States—one being Delaware, Maryland, and West Virginia in the north, and North Carolina, Georgia, Florida, Kentucky, Tennessee, Mississippi, and Alabama in the south; the other of Nebraska (the largest increase—more than 40 percent), the Dakotas, Kansas, Oklahoma, Texas, Colorado, New Mexico, and Nevada.

Chief factors in Southeastern increases were larger sales of hogs, chickens, broilers, and milk. In the Great Plains area, larger sales of hogs and cattle were principally accountable for the increase.

For the fourth consecutive year Iowa was the number 1 State in cash farm income, edging out California by a slim margin. Illinois won over Texas for third place. Other principal changes were in Arkansas, which fell from 20th to 24th place, and South Dakota and Florida, which rose from 23rd and 28th, respectively, to 20th and 25th.

FATS AND OILS

ANNOUNCEMENT of support prices for 1944 oil crops was made by the War Food Administration on January 26, subject to Congressional authorization of the total price support program. Proposed supports would

be: Soybeans—$1.94 per bushel at local delivery points for green and yellow varieties grading No. 1 or 2; flaxseed—$2.95 per bushel for No. 1 seed at Minneapolis; peanuts—$140 per ton Runner type, and $150 per ton for other types with specified percentages of sound kernels.

Total production of fats and oils from domestic sources this calendar year is now estimated at 11.2 billion pounds, as compared with 10.9 billion pounds in 1943. This increase is due to larger stocks at the beginning of 1944 and anticipated increases in imports during the year. Stocks were still considerably below normal pre-war working levels in relation to requirements, however, and the situation may be strained in the July–September period, the seasonal low point in inventories.

Amounts available for civilian consumption this year are not likely to be higher because military and lend-lease requirements will increase, and European needs may bring further demands on U. S. supplies.

Recent improvement in the fats and oils situation has come both from increased imports and larger domestic production. But this production has been confined mostly to linseed oil and technical oils unsuitable for food, so that the relative scarcity in edible fats and oils is likely to continue for some time except for a temporary spring abundance of lard.

Record lard production of almost a billion pounds occurred during the October–December 1943 period. However, civilian and industrial consumption were large, and exports also increased, causing cold-storage stocks of lard and rendered pork fat to decline 34 million pounds during the last quarter of 1943.

Prices of fats and oils will probably continue at or near ceiling levels this year, due to strong civilian, military, and export demands. Except for butter, edible olive oil, and linseed oil, only slight changes occurred in wholesale prices of fats and oils during 1943. Butter prices declined 5 cents per pound in June, as a result of a reduction in ceiling prices. In the first few months of 1943, prices of California olive oil rose about 8 cents per pound to the ceiling level, and prices of linseed oil increased about 2 cents per pound. Maximum prices were first established for linseed oil in May.

A drastic decline in tung nut production during 1943, due to severe freezes last spring, was disclosed in estimates for five commercial States—Georgia, Florida, Alabama, Mississippi, and Louisiana—published for the first time in early January by BAE. The 1943 crop is estimated at 9,300 tons, as compared with the preceding crop of 16,350 tons. Production of tung oil this year will probably total 2.8 million pounds as compared with 5.2 million pounds in 1943. The total value of the 1943 drop in five States for which production is reported is estimated at $897,000 compared with $1,501,000 for the 1942 crop. The 1939 crop was valued at $49,000.

The improved glycerine supply situation brought about liberalization of regulations covering glycerine recovery by soap makers and fat splitters, announced on January 1, 1944, by amendment 1 to Food Distribution Order 33. Without glycerine recovery restrictions, a maximum of 150,000 pounds of fats and oils per quarter may now be used, as compared with a maximum of 10,000 pounds per month heretofore. The maximum percentage of glycerine that may remain in finished soap was raised by the amendment from 0.8 percent to 1 percent.

LIVESTOCK

THE NUMBER of livestock on farms January 1, 1944, reached an all-time high despite a record slaughter of meat animals in 1943. The increase in numbers was a continuation of the upward trend since 1938.

Decreases in horses, mules, and sheep were offset by decided increases in hogs and cattle. In terms of animal units that allow for differences in size and feed requirement of the five species, excluding poultry, the January 1, 1944, numbers were 3 percent larger than a year earlier and 15 percent above the 10-year (1933–42) average. In terms of grain consuming animal units the increase over a year ago was about 7 percent, and in terms of hay and pasture units the increase was about 1½ percent.

Increased numbers did not, however, prevent a decrease in the total value of livestock on farms of 8.8 billion dollars, or 1½ percent under the record attained on January 1, 1943. Values per head of all species except mules, turkeys, and chickens were lower than a year earlier. While dairy cows were higher, all cattle were lower.

It is likely that this year's total of livestock numbers is the peak of the upward trend, and that it may turn out to be an all-time record. It appears to mark the culmination of a 6-year period of accumulation of abundant feed supplies coupled with Government encouragement to increase livestock production. By 1943 livestock numbers finally overtook feed supplies, and a great part of the grain stocks was consumed. Thus on January 1, 1943, feed grain supplies per animal unit of livestock (including chickens) were the highest in 20 years, but by January 1, 1944 the supply per unit had declined 20 percent, the smallest in 7 years and 18 percent below the 5-year (1938–42) average. Hay supplies (1943 production plus carryover) per hay-consuming animal unit this year were also lower than the near-record supply.

Prices of Farm Products

Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

	5-year average		February 1943	January 1944	February 1944	Parity price, February 1944
	August 1909–July 1914	January 1935–December 1939				
Wheat (bushel)—dollars	0.884	0.837	1.195	1.46	1.46	1.50
Corn (bushel)—do	.642	.691	.904	1.13	1.13	1.09
Oats (bushel)—do	.399	.340	.555	.775	.786	.678
Rice (bushel)—do	.813	.742	[1] 1.785	1.88	1.92	1.38
Cotton (pound)—cents	12.4	10.29	19.68	20.15	19.93	21.08
Potatoes (bushel)—dollars	.697	.717	[1] 1.258	1.47	1.39	1.22
Hay (ton)—do	11.87	8.87	11.94	15.70	15.90	20.20
Soybeans (bushel)—do	[2] .96	.954	1.60	1.82	1.85	[3] 1.63
Peanuts (pound)—cents	4.8	3.55	6.45	7.19	7.38	8.16
Apples (bushel)—dollars	.96	.90	1.71	2.73	2.94	1.63
Oranges, on tree, per box—do	[4] 1.81	1.11	1.63	1.70	1.51	[3] 1.97
Hogs (hundredweight)—do	7.27	8.38	14.63	12.80	12.90	12.40
Beef cattle (hundredweight)—do	5.42	6.56	[1] 12.32	11.40	11.80	9.21
Veal calves (hundredweight)—do	6.75	7.80	[1] 14.11	12.70	13.10	11.50
Lambs (hundredweight)—do	5.88	7.79	[1] 13.76	12.50	13.20	10.00
Butterfat (pound)[5]—cents	26.3	29.1	50.0	50.8	50.9	[6] 45.8
Milk, wholesale (100 pounds)[4]—dollars	1.60	1.81	3.08	[1] 3.37	[7] 3.33	[6] 2.79
Chickens (pound)—cents	11.4	14.9	22.8	23.9	23.7	19.4
Eggs (dozen)—do	21.5	21.7	34.2	34.6	31.9	[6] 31.8
Wool (pound)—do	18.3	23.8	[1] 40.8	40.2	39.5	31.1
Tobacco:						
Fire-cured types 21–24 (pound)—do	[8] 13.6	----------	17.0	24.6	22.9	14.8
Burley-type 31 (pound)—do	[9] 22.2	19.1	34.0	45.3	43.3	31.1
Air-cured (dark) type 35–36 (pound)—do	[10] 10.9	8.6	13.7	26.9	24.4	11.9
Air-cured (dark) type 37 (pound)—do	[10] 14.6	11.4	----------	35.3	30.6	15.9

[1] Revised.
[2] Comparable base price, August 1909–July 1914.
[3] Comparable price computed under sec. 3 (b) Price Control Act.
[4] Comparable base price, August 1919–July 1929.
[5] Does not include dairy feed payments since January 1944.
[6] Adjusted for seasonality.
[7] Preliminary.
[8] Base price crop years 1919–28.
[9] 5-season average, 1934–38.
[10] 10-season average, 1919–28.

The number of hogs on farms January 1, 1944, increased to 83,756,000 head. Indications are, however, that there will be a definite decrease in the 1944 spring pig crop and that total hog slaughter this year will consequently be little higher than last year, but the total for the first 9 months of 1944 will be considerably larger than a year earlier.

The continuing upward swing of the cattle cycle brought total cattle number (all classes and ages) to a new record of 82,192,000 head. Beef cattle represented the largest increases, while milk cows were up 2 percent.

Sheep numbers decreased about 7 percent below last year, resulting in a total of 51,718,000 head on January 1, the smallest since 1940. Stock sheep decreased about 3 million head and lambs and sheep on feed about 1 million head.

Numbers of horses and mules were both down about 4 percent on the first of the year. A further decrease in both horse and mule colts in 1943 indicates a continued decline in work stock numbers for some years to come.

Chicken and turkey numbers on farms increased, bringing chicken numbers to a new record high and turkeys to the third highest.

Increases in cattle, hogs, and chickens were general all over the country.

Index Numbers of Prices Received and Paid by Farmers

[1910–14=100]

Year and month	Prices received [1]	Prices paid, interest and taxes	Parity ratio [2]
1943			
January	181	157	115
February	184	159	116
March	192	160	120
April	197	162	122
May	194	163	119
June	195	164	119
July	193	165	117
August	192	165	116
September	193	165	117
October	194	166	117
November	194	167	116
December	196	169	116
1944			
January	196	169	116
February	195	170	115

[1] Series revised January 1944.

[2] Ratio of prices received to prices paid, interest, and taxes.

DAIRY PRODUCTS

CIVILIAN supplies of dairy products in 1944 will be allocated in quantities about equal to those consumed during the last half of 1943. This allotment is based on an estimated production in 1944 of 116 billion pounds as compared with 118 billion pounds in 1943. Allocations for military and lend-lease use may be somewhat larger than last year.

An order has been issued limiting the production of cheese other than American Cheddar to 1942 levels, or about 10 percent less than in 1943, still the second largest on record. The limitation will probably result in the use of some milk for Cheddar cheese production, rather than Swiss, cream, or Italian varieties.

The dairy production payments program, initiated last October to help dairymen meet increased feed and other costs, will be continued through the year if the Commodity Credit Corporation receives authority from Congress to make such payments. Rates for March and April would be adjusted to take into account increases in such costs since the original rates were established in October. During the spring and summer months after April, rates would be somewhat lower. Next fall and winter, the rates would be seasonally higher.

Production of dairy farm equipment is likely to be larger this year than last. New equipment will be available to bring additional farms into commercial milk production, to enable more producers to shift from marketing cream to marketing whole milk, to permit greater production efficiency, and for necessary replacements.

Sharp increases in milk production on farms occurred during January.

The total estimate was 8.6 billion pounds, 4 percent higher than December, and 2 percent lower than in January 1943. Unseasonably warm weather over much of the Nation during January tended to speed the seasonal increase of milk production per cow.

Milk production per cow on February 1 was estimated at 13.14 pounds, compared with 12.15 pounds on January 1, and 13.31 pounds on February 1, 1943. January increases were considerably higher than a year earlier in all regions except the West. However, on February 1 production per cow was less than a year ago in all regions except the South Atlantic. The greatest decrease from last year occurred in the North Atlantic States, where production per cow was down 4 percent. Production per cow on February 1 this year was above the 10-year average (1933–42) in all regions, ranging from 1 percent higher in the North Atlantic States to more than 10 percent higher in the West North Central and South Atlantic regions.

There was a mild upturn in the percentage of cows milked during January in contrast to a normal slight decline for the month. In all regions the percentage of cows being milked on February 1 was the lowest for that date since 1938, and in the country as a whole was the lowest in a decade.

POULTRY AND EGGS

BABY CHICK purchases, according to February intentions, will be about 17 percent below 1943, despite some difference expected between actual purchases and farmers' purchase intentions. The difference will depend primarily on the egg-feed-price relationship during the hatching season. Poultry feed prices are now about 20 percent higher than a year ago.

Intentions this year are to buy 75.7 percent straight run chicks (77.4 were bought in 1943), 20.1 percent pullets (17.2 percent in 1943), and 4.2 percent cockerels (5.4 percent in 1943). It is anticipated that baby chick purchases in the more commercialized areas of the New England and Pacific Coast States will be 39 and 37 percent sexed pullets, respectively.

Hens and pullets on farms laid 4,436,000 eggs in January, the largest production on record for the month—17 percent more than a year ago and 82 percent more than the 10-year average (1933–42). Increases occured over the entire country.

Due to unusually favorable weather conditions, production rate per layer was 9.97 eggs, as compared with 8.97 eggs in January 1943 and 7.32 for the 10-year average. Record levels were attained in all parts of the country except the South Atlantic and South Central States, where the rates of lay were below last year's levels. In the North Central States the rate of lay on February 1 was equal to that usually reached by March 1.

Pullets not yet of laying age in farm flocks on February 1 numbered 37,718,000, or 4 percent fewer than the record of a year ago, but 7 percent above the total on February 1, 1942.

Egg production probably will continue larger than a year earlier through the first half of 1944, but in the last several months of this year it is likely to be lower than last year's record. Total production for the year may be from 2 to 4 percent larger than last year, or about 5.1 billion dozens for farm and nonfarm output.

Wholesale egg prices declined somewhat from mid-January to mid-February, being on the latter date about the same as a year earlier to two cents per dozen lower.

On February 15, chicken prices received by farmers averaged 23.7 cents per pound live weight, compared with 22.8 cents a year earlier and 13.7 cents for the 10-year average. Turkey prices went down 1 percent by February 15, averaging 32.0 cents per pound live weight, as compared with 28.7 cents a year ago and 15.5 cents for the 10-year average.

FARM LABOR

FARM WAGE rates averaged higher in 1943 than any other year of record. At 264 percent of the 1910–14 average, the general level of all farm wage rates was 63 points higher than in 1942, and 22 points higher than in the previous record year of 1920.

The general level of farm wage rates on January 1, 1944, was at its highest point for that date in 20 years—275 percent of the 1910–14 average, a decline of 5 points from October 1 but 51 points higher than a year ago.

Pronounced increases over last year were noted in all parts of the country, ranging from $5 more per month than in January 1943 in the East South Central States to $15 higher in the Mountain States. Wages per month without board were up from $6 in the East South Central region to $28 in the Pacific States. Day wage rates also showed decided increases in all sections of the Nation. Moreover, although monthly farm wage rates with board are usually lower in the last quarter of the year, they dropped less than seasonally in 1943 and in some regions actually increased.

Although somewhat larger than a year ago, the number of hired workers on farms January 1, estimated at 1,580,000, was 4 percent smaller than the 5-year average for January 1, 1938–42. The increase over last year has been ascribed to better working conditions last fall, and to the desire of farmers to keep their hired workers in anticipation of the heavy work load expected in the spring.

The 6,622,000 family workers estimated as being on farms in early January represented a larger group than a year earlier, but 3 percent fewer than the January 1, 1938–42 average.

FRUIT

THE 1943 pack of canned fruits is indicated at about 45 million cases (equivalent 24 No. 2½ cans), or about one-fourth smaller than that of 1942. However, the 1943 fruit juice pack (citrus juice from the 1942–43 crop of citrus fruit, and other juices from the 1943 pineapple and deciduous crops) is indicated to be about 32 million cases, or one-third larger than the preceding pack.

The supply of canned fruits available for civilian consumption during the 1943–44 marketing year probably will not exceed 70 to 75 percent of the quantity consumed by civilians in 1942–43. Civilian consumption of fruit juices in 1943 is indicated to about equal that in 1942.

The per capita supply of fresh citrus fruit for civilians in 1944 may exceed 1943 consumption by approximately 10 percent. Larger orange supplies account for most of the increase.

COTTON

DURING the first half of the 1943–44 season cotton consumption totalled 5.1 million bales, of which 21,635 bales were American-Egyptian cotton and 58,162 bales were foreign. This compares with 5.6 million bales during the corresponding period a year earlier, of which 25,723 bales were American-Egyptian and 92,109 bales were foreign.

On a daily basis, this amounted to a decline in total consumption of 10 percent. Annual consumption rates for American-Egyptian and foreign cotton dropped 17 percent and 38 percent, respectively. It now appears that the 1943–44 consumption will be about 10 percent lower than in 1942–43 (11.1 million bales), or approximately 10 million bales.

Reductions in the daily rate of cotton consumption have occurred mostly in non-cotton-growing States. The percentage decline from the peak level of April 1942 has been only about one-half as great in the cotton-growing States.

Chief factor in lowered cotton consumption is a tight labor situation. From 1940 until the last few months

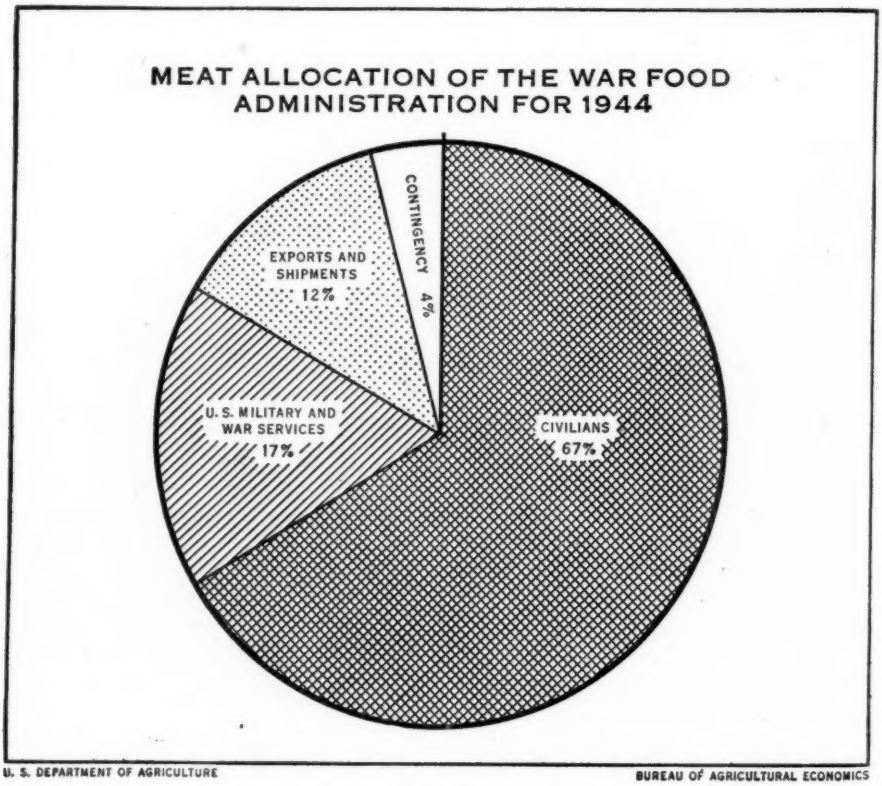
employee turnover in the mills increased steadily. A byproduct of this was the necessity for employing many inexperienced workers. In addition, there has been a net decline in the total number of employees. In November 1943, 489,000 workers were employed, or a drop of 7.4 percent from the peak employment in December 1942 of 528,000 workers.

Cotton prices have recently strengthened somewhat and the 10-market average price of 20.8 cents in February was the highest since last July.

The loan programs for 1943 and 1944 crops of American-Egyptian cotton, and the 1944 crop of Sea Island cotton, announced by the War Food Administration on February 10, will have particular significance for lower grades of these types because they are not included in the present purchase programs. The loan rate for the basic quality of American-Egyptian cotton (Grade No. 2, 1½ inches) will be 40.80 cents per pound, net weight, in the Arizona-California area, and 41.05 cents per pound, net weight, in the New Mexico-West Texas area.

The loan rate for the basic quality of Sea Island cotton (Grade No. 2, 1 1/16 inches) will be 45.00 cents per pound, net weight, at all locations. Loan rates for Sea Island cotton will average approximately 2.25 cents per pound higher than the loan rates for the same qualities of American-Egyptian cotton. This spread reflects the approximate market difference between these two types of cotton.

A separate parity price (base period August 1922–July 1929) for American-Egyptian cotton has recently been announced. On January 15, 1944 the parity price for this cotton was 42.36 cents per pound.



Livestock and Feed in 1944

ABOUT 171 million grain-consuming animal units were on farms January 1, 1944, the largest number ever recorded. On that date stocks of corn and oats, totaling 68 million tons, were 11 million tons less than a year earlier, but were 18 million tons more than the average for the 10 years 1930–39.

Total feed supplies in 1944 will depend in considerable part on the outcome of this year's feed crops. Achievement of the 1944 production goals for corn, oats, barley, and grain sorghums, with the assumption of average yields per acre, would result in a total output of feed grains 3 to 5 percent less than the output in 1943 on approximately the same total acreage. With less grain on hand January 1 than a year earlier, total feed grain supplies would thus be about 10 percent smaller in 1944 than in 1943. But yields per acre, of course, could again be above average in 1944 if the weather is good. Present indications point to a third less wheat available for livestock feed in 1944 than in 1943. On the other hand, if oilcrop production goals are met, the supply of high protein feeds would be slightly larger than in 1943.

Reduced Livestock Output

With average weather, livestock output—measured in terms of total gain in the farm weight of meat animals and poultry, and in total production of milk and eggs—is likely to be somewhat smaller in 1944 than the record output of 1943. This decrease will be reflected primarily in a reduced pig crop, a smaller number of chickens raised, a slightly lower production of milk, and lighter feeding of beef cattle. The lamb crop also will be lower than last year because of the large ewe slaughter during the past 12 months.

The number of sows to farrow in the spring season of 1944 is expected to be about 16 percent less than in the spring of 1943, if farmers' intentions reported on December 1, 1943, are borne out. Present indications are that the spring pig crop this year may be about 62 million head compared with 74 million head in the spring of 1943. The fall pig crop in 1944 also may be substantially lower than the record fall crop last year, when nearly 48 million pigs were saved. Despite these reductions, the total pig crop in 1944 would still be the second or third largest on record, being close in size to the very large crop of 1942 when 105 million pigs (spring and fall combined) were saved.

Other indications of a reduction in livestock output in 1944 include a reported decrease of 16 percent in the number of cattle on feed for market on January 1 compared with a year earlier, a decrease of 15 percent in the number of sheep and lambs on feed, a decrease of 3 percent in milk production per cow, and an intended reduction of 17 percent in chick purchases. On the other hand, the total numbers of milk cows, other cattle, and chickens on farms January 1 this year were the largest for all years on record, and the January rate of egg production per layer also was a record high.

A sharp distinction should be made between livestock production on farms and meat production resulting from the slaughter of livestock. Meat production in 1944 is expected to be larger than in 1943. Between 23 and 24 billion pounds (dressed weight) of pork, beef, veal, lamb and mutton were produced in 1943. Meat output in 1944 probably will equal or exceed 25 billion pounds, with hog and cattle slaughter increasing but sheep and lamb slaughter declining.

But More Pork and Beef

During the first 9 months of the year hog slaughter will come largely from the 1943 pig crop of 122 million head. Allowing for death losses, the

576183°—44——2

October–December 1943 slaughter and some reduction in the size of the breeding herd, hog slaughter from January through September 1944 would exceed all previous records. However, with a reduction in the size of the spring pig crop in prospect, the number of hogs marketed in the period October–December 1944 may be less than the number slaughtered in the corresponding period of 1943. Hogs slaughtered in 1944 probably will average somewhat lighter in weight than in 1943.

Cattle and calf slaughter in recent weeks has been running at a considerably higher level than a year ago, reflecting the record number of cattle and calves on farms as well as the tightness in winter feed supplies. During the coming months, poor pasture and range would induce heavy cattle marketings as would prospects for a decline in cattle prices. If feed supplies are adequate and the prospect continues favorable for high cattle prices, cattlemen may tend to maintain numbers on farms near the present high level. With a large breeding herd and a large calf crop expected, cattle and calf slaughter could be increased in 1944 without causing a reduction in the number of cattle and calves on farms from the beginning to the end of the year.

The number of sheep and lambs on farms January 1, 1944, was again reduced from a year earlier. With fewer breeding sheep, the lamb crop is likely to be smaller this year than last. Even if some further liquidation of ewes occurs this year, slaughter of sheep and lambs is likely to be less than in 1943.

Lowered Milk Production

Milk production in 1943 was about 118 billion pounds. The milk production goal for 1944 is 121 billion pounds. Achievement of this goal will mean increased cow numbers, diversion of feed from other livestock to dairy cows, and maximum production of pasture and other feed crops. If present trends continue, milk production may be nearer 116 billion pounds in 1944, with output during early 1944 about 2 percent less than last year and perhaps approaching the 1943 level near the end of the year.

Farm marketings of fowl, culled from laying flocks, probably will be larger than a year earlier in much of 1944, with the greatest gain over 1943 likely at the close of the spring period of flush egg production. A reduced commercial hatchery output in late 1943 and early 1944 suggests that marketings of commercial broilers and fryers in the next few months will be smaller than a year earlier. For 1944 as a whole it is likely that increased marketings of fowl will about offset decreased marketings of young chickens, and total slaughter of chickens will about equal the record of approximately 3,800 million pounds dressed weight established in 1943.

Increased Egg Output

With a record number of layers on hand at the beginning of the year and a high rate of egg production per layer, total egg production in the first half of 1944 probably will be larger than in the corresponding period of 1943. In the second half of 1944, egg production may fall below the record output of the second half of 1943, depending partly on the extent of culling of fowl from laying flocks after the spring months. At present it seems likely that total egg production in 1944 may be 2 to 4 percent larger than the 4.97 billion dozen produced in 1943.

Thus it is probable that the output of livestock products, as a whole, will be larger in 1944 than in 1943, even though livestock production on farms may be smaller. Livestock numbers at the end of 1944, especially numbers of hogs and chickens, are likely to be smaller than at the beginning. The demand for feeds next fall and winter will be somewhat less strong than in the past fall and winter. The supply of feeds in the next feeding year of

course will depend in large measure on the outturn of feed crops this year and on the actual extent to which livestock numbers are adjusted downward during the course of the year.

New Livestock-Feed Balance

To conserve feed supplies and to direct livestock production into most essential channels, the 1944 goals call for increases in milk and egg production, but decreases in the size of the pig crop, in the number of chickens and turkeys raised, in commercial broiler production, and in the number of beef cattle and sheep on farms. Other measures for adjusting livestock and feed supplies include: (1) The distribution of substantial quantities of wheat acquired from domestic loan programs and from foreign purchase, (2) distribution of oilcake and oilmeal to areas most critically in need of protein feed supplies, (3) payment of the difference between purchase costs and local selling prices for hay shipped into areas affected by drought in 1943, and (4) payments to milk and butterfat producers to enable them to meet advances in production costs since September 1942.

Many other adjustments have been made, and are being made, by farmers. But the most important changes to reach a better balance will be the diversion of feeds to milk cows and laying hens so far as practicable, the reduction in sow numbers, the feeding of hogs to lighter weights, and the increased marketing of beef cattle on individual farms. When this balance has been reached, livestock output can still be held at a high level, although not so high as in 1943, provided the feed-crop production goals are reached and average weather or better prevails in the next few years.

ROBERT M. WALSH
Bureau of Agricultural Economics

1943 Cash Farm Income

PRESENT estimates place the 1943 cash income from farm marketings at 19.1 billion dollars. This amount, although slightly smaller than was anticipated in the autumn of 1943, is much the largest on record, exceeding the total in 1919 by 31 percent. The shift in American agriculture since World War I toward emphasis on livestock is reflected in the cash income figures. Returns from crops in 1943 totalled 7.9 billion dollars, 3 percent more than in 1919, while income from livestock in 1943 amounted to 11.2 billion dollars, or 62 percent more than in 1919.

Prices received by farmers for crops averaged 19 percent lower in in 1943 than in 1919, while prices received for livestock were 3 percent lower in 1943 than 1919. Production, on the other hand, has been much larger throughout this war than during World War I. The output of crops for sale and home consumption in 1943 was 9 percent smaller than the record breaking output in 1942 but was nevertheless 23 percent above 1919. Production of livestock (in cluding livestock products) set a new record in 1943, 53 percent more than in 1919.

Table 1 compares cash farm income in 1942 and in 1943, by commodity groups.

Returns from all groups of crops were larger in 1943 than in 1942, but relatively largest gains were made by vegetables, fruits and nuts, and feed grains. All groups of livestock com-

Table 1.—1942 and 1943 Cash Income From Farm Marketings, by Commodity Groups

Commodity	1942	1943	Percent increase
	Mil. dol.	*Mil. dol.*	
Food grains	944	952	0.8
Feed grains and hay	815	1,114	36.7
Cotton and seed	1,244	1,412	13.5
Cotton lint	1,049	1,210	15.3
Oil-bearing crops	468	611	30.6
Tobacco	474	557	17.5
Vegetables	1,081	1,524	41.0
Truck crops	666	937	40.7
Fruits and nuts	826	1,160	40.4
Other crops	535	573	7.1
Total crops	6,387	7,903	23.7
Meat animals	4,811	5,593	23.7
Dairy products	2,332	2,705	16.0
Poultry products	1,648	2,322	40.9
Other livestock	205	209	2.0
Total livestock	8,996	11,189	24.4
Total marketings	15,383	19,092	24.1

modities likewise gave farmers larger returns in 1943 than in 1942, but poultry and eggs made the largest relative increase—41 percent.

For some commodities the large increase in income was due mostly to price increases, while for others the increase in income was mostly due to larger sales. Table 2 compares the changes from 1942 to 1943 in production, farm prices, and cash farm income for the various groups of commodities. The production column shows percentage changes in the quantities of crops harvested in 1942 and 1943, not the quantities sold in the two calendar years. Although the production of the oil-bearing crops (soybeans, peanuts, and flaxseed) was only 3 percent larger in 1943 than in the previous year, the quantity sold was much larger. This was because the 1942 production of these crops, much of which was sold in 1943, was 76 percent larger than 1941 output, much of which was sold in 1942.

Because of differences in weather and other growing conditions and also because of differences in economic factors, changes in farm income from one year to the next are not the same for all States. From 1942 to 1943 cash income from farm marketings for the United States as a whole rose 24 percent. Increases in the individual States ranged from 48 percent in Florida and 42 percent in Arizona to 8 percent in Oklahoma. Throughout the East North Central and North Atlantic Regions the increases were generally less than the national average, but Maine and Connecticut showed increases of 38 and 31 percent, respectively.

Income from crops was larger in 1943 than in 1942 in all but two States—Kansas and Oklahoma. The decline in Oklahoma, amounting to 20 percent, indicates the effects of the serious spring flood and the summer and fall drought. In contrast to these declines, the increase in 1943 crop income over 1942 was over 50 percent in Arizona, Florida, Maine and Connecticut, and more than 40 percent in North Dakota. Increases of 30 to 40 percent were recorded in Iowa, New Jersey, Colorado, California, Montana, Nebraska, South Dakota, Massachusetts, Minnesota and Oregon.

For the country as a whole, cash income from marketings of livestock

Table 2.—1943 Changes From 1942 in Production, Farm Prices, and Cash Farm Income

Commodity group	1943 change from 1942		
	Production	Prices	Income
	Percent	*Percent*	*Percent*
Food grains	−22	23	1
Feed grains and hay	−11	32	37
Cotton and cottonseed	−11	-------	14
Cotton	−11	7	15
Tobacco	0	29	18
Oil-bearing crops	3	[1] 10	31
Vegetables	-------	-------	41
Truck crops	−9	50	41
Potatoes, sweetpotatoes and dry edible beans	17	-------	39
Fruits and tree nuts	−10	57	40
Total crops	−9	29	24
Meat animals	14	11	24
Poultry and poultry products	16	26	41
Dairy products	−1	19	16
Total livestock	10	16	24
Total crops and livestock	2	21	24

[1] Includes cottonseed.

was 24 percent higher in 1943 than in the preceding year. Two groups of States showed greater than average increases. One group extended from Delaware, Maryland, and West Virginia in the north, southwestward through North Carolina, Georgia, Florida, Kentucky, Tennessee, Mississippi, Alabama and Louisiana. In the other group, Nebraska showed the greatest increase, amounting to more than 40 percent, but substantial gains were shown by the Dakotas, Kansas, Oklahoma, Texas, Colorado, New Mexico, and Nevada. In the Southeastern States the principal factors in the increased income from livestock were larger sales of hogs, chickens, broilers, and milk. In the Great Plains Area, larger sales of hogs and cattle were primarily responsible for the rise in income.

In the nip-and-tuck contest for the position as number 1 State in cash farm income, Iowa beat California for the 4th consecutive year. California held first place from 1930 to 1939. Texas, which was in first place in all but one year from 1924 to 1929, held third place in 1941. In 1942 and 1943, however, Illinois nosed out Texas and took third place. The greatest changes in rank from 1942 to 1943 were made by Arkansas, which fell from 20th to 24th, and by South Dakota and Florida, which rose from 23rd and 28th, respectively, to 20th and 25th.

C. A. Gibbons
Bureau of Agricultural Economics

Improved Grains Bring Higher Yields

BECAUSE they have brought so many of their accomplishments to fruition at a time of great need, plant breeders are being recognized for their importance in making better living possible to more people.

Although the development of hybrid corn for higher yields and other valuable characteristics has been under way by scientists of the U. S. Department of Agriculture and State experiment stations for many years, it has been only in the past two or three years that a considerable percentage of America's total corn acreage has been devoted to hybrid corn.

Half of Corn Acreage Hybrid

In 1943 hybrid corn was grown on more than 52 percent of our total corn acreage and on more than 99 percent of the acreage in Iowa. Despite last year's none too favorable season the corn crop was some 3,076,000,000 bushels, the second largest on record—surpassed only in the bumper year of 1942 with nearly ideal growing conditions. The third largest crop of some 3,071,000 bushels was produced in 1920, another unusually good season. But in that year it took 101,360,000 acres to produce a trifle smaller crop than the one produced in 1943 on only 94,790,000 acres. In other words, in 1943 we used 6,570,000 acres less land to grow about the same crop produced in 1920. The wider use of hybrid corn in recent years is an outstanding factor in explaining this achievement.

Many people throughout the country have heard of Thatcher wheat, but perhaps not many know that this variety, resistant to stem rust, is already on the way out. With present-day procedures and much valuable plant material to work on, the plant breeders keep the improved kinds moving in an ever-ascending series, much as automobile makers kept im-

proved models rolling off the assembly lines. Thatcher was first distributed in 1934 and by 1939 was grown on nearly 15,000,000 acres in the United States and Canada. Its stems were practically rustproof but its leaves did not resist leaf rust. As a result Thatcher began to give way almost immediately in Minnesota and the eastern Dakotas to two new varieties developed by the Department and State experiment stations. The new ones, Rival and Pilot, outyield the famous Thatcher 7 to 10 bushels per acre in leaf-rust years. Even in nonrust years they are just as good or a little better. They probably will occupy more and more acres unless the crop improvers bring out still better ones, which there is every reason to believe they will. Several new disease resistant varieties of winter wheat have also been distributed in the last 2 years.

Improved Oat Strains

Oat varieties, too, have been improved regardless of the fact that the horse, formerly the oat bin's chief customer, has greatly decreased in number. To illustrate, there were 24,211,000 horses and mules on farms in the United States in 1910 and that year the country grew 1,106,162,000 bushels of oats. There were slight ups and downs in total oats as three decades rolled by, but in 1940 the total production was 1,246,050,000 bushels. And yet the old feed box customers have fallen away to almost half the 1910 number—down to 13,932,000.

The grain is now fed in greater quantities to other farm animals and is used as human food, but a big factor in the crop's popularity is the greater yield the plant breeders have made possible by originating more productive varieties with resistance to the smuts and rusts. Recent estimates by the Crop Reporting Board of the U. S. Department of Agriculture show that in Iowa and Wisconsin where the new varieties have been most widely adopted the average yield is 39 bushels to the acre, in each case about 8 bushels more than usual. In Iowa 60 percent of the oats acreage produced the new varieties in 1943, and in Wisconsin 50 percent. Yields were up also in all States adjoining Iowa and Wisconsin. The 1943 acreage devoted to the new varieties is estimated at 7,000,000—about one-fifth of the total for the United States.

40 Percent of Barley Barbless

The breeding of improved barley varieties with smooth awns has made this crop more popular with farmers. The coarse barbed awns of the varieties formerly grown caused mouth sores of livestock, reduced the feeding value of barley grain, and made it disagreeable to handle during harvest. Plant breeders of the Department found varieties which had awns with no barbs and this character was transferred to high-yielding varieties adapted for growing in the major barley growing areas. The first of these varieties with smooth awns was distributed for commercial growing about 15 years ago. It is estimated that about 40 percent of the present barley acreage is planted to smooth awned varieties. A number of new improved varieties with smooth awns and greater resistance to one or more of the crop hazards, drought, diseases, insects and lodging, have been distributed to growers in Minnesota, Wisconsin, North Dakota, Montana, Utah, Colorado, Texas, and North Carolina.

An important factor in this barley breeding work is the world collection of 4,000 varieties maintained by the Bureau of Plant Industry, Soils, and Agricultural Engineering. Each variety is grown every 5 years so as to keep viable seed available for breeding purposes at all times. The collection is second in size only to a Russian Government collection. As an example of the usefulness of this collection barley breeders are now working to develop varieties resistant to aphids, or green bugs, which are very destruc-

tive in Texas and Oklahoma barley fields, causing a loss in 1942 of more than $3,000,000. A number of varieties resistant to green bug, but not otherwise adapted to the Texas-Oklahoma region, were found in the collection and are being used to breed adapted varieties resistant to this pest.

Wilt-Resistant Flax Ups Yields

The varieties of flax grown when the new lands of Minnesota and the Dakotas were first cropped can no longer be produced in this region because, after a few crops of flax, the soils became infested with a disease known as wilt, which seriously reduced yields of these susceptible varieties. Plant breeders developed such wilt-resistant varieties as Bison, which made continued flax production possible. After Bison had become widely grown, seasons favorable for the flax rust occurred and this disease took a heavy toll. In the flax-breeding program, plant breeders crossed such adapted varieties as Bison with unadapted rust-resistant varieties, and developed the new varieties Crystal and Koto which are resistant to wilt and also to rust. Varieties resistant to wilt and rust are now widely grown and have made possible the large production of linseed oil for war purposes during the present emergency.

A marked increase in the acreage sown to improved rice varieties has occurred in recent years. For example, in 1933 only 8.3 percent of the southern rice acreage was sown to varieties released by the cooperative Federal-State rice experiment stations, whereas in 1943, 46.5 percent of the acreage was sown to Station varieties. In 1933, the older varieties Blue Rose and Early Prolific were sown on 88 percent, but in 1943, on only 51 percent of the Southern rice acreage. These varieties, especially Blue Rose, are being replaced by the disease-resistant improved Rexoro, Fortuna, Nira, and Zenith varieties. The latter varieties yield better than Blue Rose and sell for a higher price, especially Rexoro and Nira.

Rye differs from the other small grains in being a cross-pollinated plant. Because of this characteristic little progress has been made in breeding new improved varieties of this crop. A few improved varieties, however, have been made available to farmers. Among these are the Rosen variety, developed in North Dakota, and Abruzzi, introduced from Italy by the Department of Agriculture. Abruzzi is the most extensively grown variety in the Southern States.

Sorghums Tailored to Harvester

Even grain sorghums, which produce good feed grain crops west of the corn line on subhumid land, have been bred up by the plant breeders in what might be called a finishing touch to nation-wide cereal improvement. Not only have the breeders produced high-yielding varieties resistant to disease but they have tailored them to suit the demands for harvester-thresher harvesting, making the stalks straight and about the height of wheat and taking the droop from the seed heads. Here is a case of the engineers and the agronomists meeting half-way—not unusual these times—to get the most from a crop with the minimum of labor.

B. B. Bayles, *Bureau of Plant Industry, Soils and Agricultural Engineering*

CORRECTION—On the cover of the *Agricultural Situation* for January 1944 appeared the statement which read in part "highest farm *prices* in history." This was a typographical error. It should have been "highest farm *income* in history." See income story on page 11 of this issue.

Wartime Changes in Crop Reporting

WARTIME brings an increased need for information on crop and livestock production, agricultural prices, and stocks of commodities available for distribution. While the patriotic urge to help in the war effort stimulates the spirit of cooperation among farmer-reporters, information is obtained with increasing difficulty. Like many other agencies, the Crop Reporting Board finds itself faced with a greater demand for its services at a time when its facilities are greatly restricted.

The voluntary cooperation of the thousands of public-spirited farmers and dealers in agricultural products has made it possible for the Department of Agriculture to supply information on developments on the farms and in the farmers' market places. The Department has found it possible to pass this information back to the public as a basis of action for the farmer, dealer, and consumer alike. The information has been basic to the actions taken by the Department's agencies in the complex and difficult job of directing the combined efforts of the nation's farmers to bring about the best balanced production possible under wartime conditions, to provide those products most vitally needed by our armed forces, our civilians, and our allies in the prosecution of the war.

Balanced Crop Output

A nation at war on the colossal scale of the present conflict needs to direct its energies toward a production which is in the best possible balance with its needs. Weather permitting, agricultural production has to be attuned to a balanced output of crops and livestock products to maintain the health and vigor of the civilian population while providing ample supplies for the armed services and filling the gaps in the supplies of our allies. Such production is stepped-up production—greater than the average of recent years. But care must be taken lest over-production of one commodity may take place at the expense of underproduction of another.

Adequate Information Essential

Intelligent advice to farmers or intelligent direction to their efforts requires adequate information concerning each commodity not only now but over a period of past years. It was fortunate that the Department had developed statistical information concerning agricultural production comprehensive enough to meet most of the needs of administrators who have to deal with the problems of food supply and its distribution to consumers, the armed services and to our allies.

An illustration of the need for timely information on production developments is the recent request made by the War Food Administration that the kraut industry process 80,000 tons of southern cabbage into kraut. Truck crop reports of last January indicated that a record production of winter cabbage would be produced in the southern States. This happened, in part a reaction to the short summer and fall cabbage crop in 1943, which was most marked in the case of kraut cabbage. To the extent it is possible to process part of the winter crop into kraut, a dual purpose will be served—wastage of part of the over-supply of cabbage will be mitigated and a deficit of kraut production will be made up.

Attributable directly to the war is the initiation of reports on strictly war crops. Among these are the reports on hemp, with greatly expanded acreage and production, under Government stimulus, to meet increased military needs which have been accentuated by decreased imports of fibers. Another adaptation to meet

war conditions is the expanded service provided for soybeans, which have become a wartime crop of first magnitude. This important oil-bearing crop has been expanded greatly during the last few years and an improved service has been inaugurated in the form of earlier reports of acreage available for harvest as beans and earlier forecasts of production.

Additional Reports Needed

The regular reports of crop production are not sufficient in themselves to provide the maximum information needed under war conditions. Frequent reports upon quantities remaining for distribution, that is to say, supplies on hand, are vitally needed. In keeping with these needs, additional reports have been prepared upon stocks of grains on farms, with country handlers and with processors. Commodity stocks not previously reported have been brought into the program of stocks reports. In the case of beans, quarterly estimates of stocks on farms and in the hands of country handlers and processors have been provided by varieties during the current storage season.

In the field of livestock statistics, annual livestock inventories, semiannual pig crop estimates, and annual estimates of the calf crop and lamb crop are basic to the determination of meat production. The monthly reports of poultry and egg production are essential to the Department's program for making eggs available in dried form for the use of the armed forces and the allied nations. In like manner, the monthly estimates of milk production have a bearing upon the measures taken to allocate and distribute cheese, a food of magnified importance in wartime.

World War II has seen the development of stupendous complexities in the field of prices. A period of agricultural depression programs designed to alleviate price disparities for agricultural commodities by readjustments in production is in the past. Instead, we are now in an era, on the one hand, of support prices designed to stimulate production of livestock products and crops, and on the other hand, of ceiling prices designed to prevent inflation by holding down consumer costs. As a result, there is an amazing interest in statistics of prices—prices received by farmers in relation to parity prices, in relation to support prices, and in relation to the ceiling prices of agricultural products and processed commodities made from them. Fortunately, prices have been reported currently upon practically all agricultural commodities, but the increased interest in price relationships has necessitated the publication of many additional price comparisons.

Farmers Chief Source of Data

In obtaining information about crop and livestock production and agricultural prices, main reliance has been placed upon farmer-producers. Estimates of acreage and of livestock numbers are based upon samples of individual farms obtained in varying numbers at various times of the year. The most extensive are the cards delivered and returned by rural mail carriers in June, October, and December. Each rural carrier is asked to distribute 10 to 20 cards to farmers upon his route and to return the completed cards. This distribution is supplemented by direct mailings in areas where farmers are not served by carrier routes. There has been some falling off in returns but, by and large, farmers have found time to continue their assistance in this work.

The next in size is the list of a quarter million farmers who are asked in March to report their intentions to plant, and in June to report actual plantings of crops. These inquiries are basic to the Prospective Plantings Report in March and the July estimates of acreage for harvest, to which the production forecasts are tied. Here again there has been some falling off in returns due to the production demands upon the time of the farmer.

The 80,000 regular crop reporters continue to receive a general crop and livestock inquiry each month and their faithfulness in the face of their increased farm activities can be accounted for only by their public-spirited and patriotic interest in the work. Their returns have been made with increased patriotic fervor, but likewise with increased difficulty. After a busy day in the field, time and energy are not always available to complete and return the regular monthly crop and livestock schedules and such other inquiries as are directed to them with requests for additional information.

For years, dealers and processors in farm commodities have been the principal source of information concerning prices. They have been asked to report upon prices received by farmers and prices paid by farmers for commodities used in the farm business and in the farm home. It has been increasingly difficult for them to supply the information upon prices which is requested of them. And so it is a tribute to their patriotism and public interest that they have continued to supply this information in the face of the handicaps under which they operate.

JOSEPH A. BECKER
Chairman, Crop Reporting Board

Fruit Production Prospects for 1944

PRESENT prospects for 1944 fruit production point to a somewhat greater tonnage than harvested in 1943. A year ago conditions were also fairly favorable for fruit crops, but spring freezes in the eastern and central States and some western States, and a summer and fall drought in the South Atlantic area, reduced the tonnage of deciduous fruits harvested in these areas materially below average and below the large production of 1942. Citrus fruits, however, were not affected seriously by weather hazards, and total production of these from the bloom of 1943 is estimated to be the largest of record.

Fruit Output Up 10 Percent

Assuming that growing conditions will be about average in 1944 in all sections of the country, total deciduous fruit production should be from 10 to 20 percent greater than the 1943 harvest but possibly 5 percent smaller than the large 1942 production. Considering the more important individual fruits this assumption (average growing conditions in 1944) indicates percentage increases in production in relation to 1943 about as follows: Apples 25, peaches 50, pears 15; and decreases of about 10 percent for grapes and prunes. Average weather in citrus fruit areas in 1944 would maintain the supply of these fruits near the high level reached in the past 2 years.

Weather Chief Factor

The most significant—and least predictable—factor affecting fruit production in 1944 is the weather. Spring freezes after the buds have started, as occurred in 1943, might reduce production of deciduous fruits materially. Low temperatures and excessive moisture at pollination time may reduce the set, and drought may be unfavorable for sizing of fruit. Tropical storms and winter freezes are recurring threats to citrus production and, of course, their occurrence cannot be predicted. During the past 8 seasons, storm or freeze damage has not been serious in any of the important citrus States. It seems unlikely that weather factors will be unfavorable for total deciduous fruit production two years in succession, although the long time

record shows relatively short crops in the consecutive years of 1909 and 1910; 1924 and 1925; 1933 and 1934.

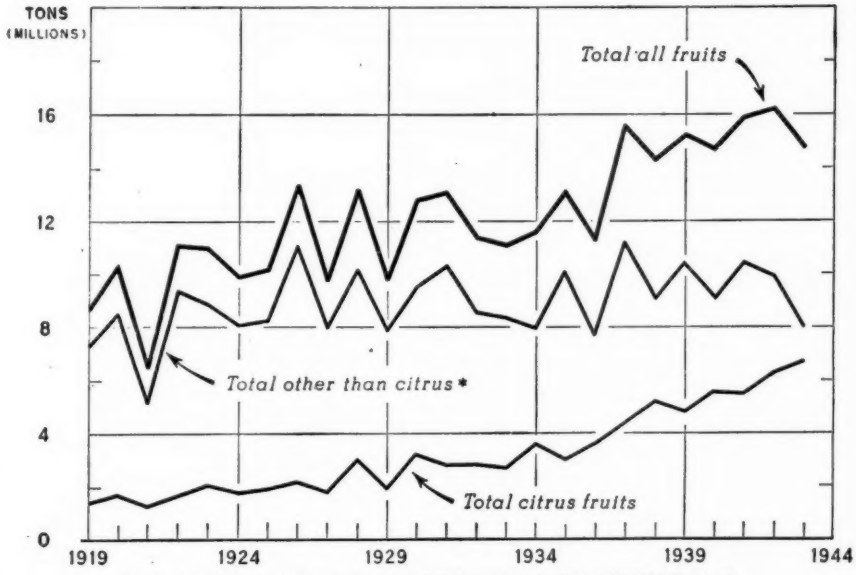
Fruit production depends upon the number of bearing trees and yields per tree. Net changes in numbers of bearing trees usually occur gradually because removals tend to be offset by young trees coming into bearing, or vice versa. As only minor changes in bearing acreage are indicated for 1944, fruit production will vary from 1943 largely as yields per tree change. Many factors influence yields. Some of these can be evaluated for 1944 with reasonable certainty at this time. Fruit crops require timely and adequate spraying, pruning, and fertilizer application. Whether growers accomplish these things depends in a large measure upon the availability of materials and labor and upon whether the price outlook warrants the necessary expenditures. In 1943, deciduous fruit crops were generally short with prices much higher than in recent years.

According to present indications, adequate financing, spray materials, necessary equipment (sprayers, tractors, trucks, etc.) and supplies of labor will be available in most sections of the country. One or more of these items may prove to be a limiting factor on many farms, but it seems unlikely that they will materially limit the 1944 fruit tonnage.

With the relatively low prices for many years and the economies of large-scale operations, fruit production has tended to concentrate into larger individual units and into commercial areas. In general, these larger operators have pruned, sprayed and fertilized fairly well during the past few years and have made adequate preparations for the 1944 season.

In 1943 fruit production varied greatly by kinds and regions. Oranges, grapefruit, and grapes were record large crops. Commercial apples, peaches, and apricots were near-record small crops. Cherries and pears were the smallest crops in recent years. Total deciduous fruit production in the Eastern and Central States was much smaller than in 1942 and smaller than average. Winter and spring freezes, cold rainy weather

FRUIT PRODUCTION: UNITED STATES, 1919-43



* INCLUDES APPLES, PEACHES, PEARS, GRAPES, CHERRIES, PLUMS, PRUNES, APRICOTS, FIGS, OLIVES, PINEAPPLES, AVOCADOS, CRANBERRIES, DATES, PERSIMMONS, AND POMEGRANATES

U. S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

at pollination time in many areas, and drought conditions in the South Atlantic States were unfavorable for deciduous fruit production in 1943. The record high California grape crop, combined with total tonnage of the deciduous tree fruits for the Western States as a group, resulted in near-average deciduous fruit production in this region.

Total fruit supplies have increased markedly during the last 25 years, production having averaged about 60 percent more during the past 5 years (1939–43) than in 1919–23. Production trends have varied greatly for different fruits and different groups of fruits. Citrus fruit production has increased steadily, the increase being greatest during the past decade. The combined production of oranges, grapefruit, and lemons averaged 5,782,000 tons in the 5-year (1939–43) period compared with 1,644,000 tons in the 5-year period 1919–23, an increase of 252 percent. Tonnage of these 3 principal citrus fruits was 45 percent greater in the past 5 years (1939–43) than in the preceding 5 years.

Large Citrus Plantings

Many large orange and grapefruit plantings of the 20's and 30's have now come into or approached full bearing capacity. Because of the relatively young average age of bearing trees and the maintenance of bearing acreage at present levels, some further expansion of citrus production seems probable. These citrus fruits comprised about 39 percent of the total tonnage of all fruits produced in 1942 compared with only 16 percent in 1919.

Deciduous Trend Upward

The trend in total tonnage of all deciduous fruit has been slightly upward for the past 25 years but with varying trends for individual fruits. Apples, most widely grown and in most years having the greatest tonnage of any fruit, have declined moderately in production and are now surpassed by oranges. Grapes, second most important deciduous fruit in total tonnage, have increased slightly during the past 2 decades. Production of cherries and figs have increased sharply during the past 25 years. The average production from 1939 to 1943 of each was about 3½ times the average production from 1919 to 1923. Production of peaches, plums, prunes, and apricots has tended to remain at fairly constant levels except for year-to-year fluctuations. The decline in relative importance of deciduous fruits is indicated by a comparison of the proportion of total fruit tonnage, 83 percent in the 5-year (1919–23) period and 62 percent from 1939–43. Apples averaged 41 percent of total fruit tonnage in the earlier period, but only 23 percent during the last 5 years.

CARY D. PALMER *and*
REGINALD ROYSTON
Bureau of Agricultural Economics

Revised Index of Prices Received by Farmers

SEVERAL improvements in the index of prices received by farmers increase its completeness and usefulness. Important changes in agricultural production during the past decade have made apparent a need for revision of weights and new groupings of commodities. This revision does not affect parity prices in any way. The new index appears on page 24 of *The Agricultural Situation.*

Shifts in the relative price importance of farm commodities since 1934 have made desirable three main changes in the price index: (1) Certain commodities whose importance in-

creased since 1934 have been added while others becoming less important have been dropped, (2) weights used in representing the various commodities have been moved from the 1924-29 average volume of sales to the 1935–39 average volume of sales, (3) commodities have been regrouped to make the sub-indexes useful under present-day conditions.

New Crops Added

Among commodities added to the index are: Soybeans, turkeys, peaches, strawberries, grapes. Widespread production of soybeans for oil has moved this commodity to the forefront since the mid-1930's. Increased output of peaches, strawberries and grapes, has led to their inclusion in the fruit index which previously included only apples, pears and citrus fruit. And because turkeys are now an important enterprise they have been added to the poultry index which had included only chickens and eggs. In contrast, horses and mules have been dropped from the price index because their importance in farm operations has been steadily declining.

Moving the weights from a 1924-29 average of sales to a 1935–39 average of sales reflects the decreased relative importance of grains and cotton in farm income on the one hand, and increased importance of dairy products, meat animals and oil crops on the other. Although the weights have been changed to a more recent period, there has been no change in the base, August 1909 to July 1914, for the index numbers.

Commodities Regrouped

Along with these improvements in the index, advantage was taken of the opportunity to regroup commodities into more useful major and sub-group indexes. The old groupings were: (1) All grains, (2) cotton and cottonseed, (3) fruit, (4) meat animals, (5) dairy products, (6) poultry and eggs, (7) truck crops, (8) miscellaneous commodities. The new groupings are indicated in the accompanying chart.

New Commodity Grouping in Revised Price Index

All crops

Food grains	Feed grains and hay	Tobacco	Cotton	Fruit	Truck crops	Oil crops	Field vegetables [1]
Wheat. Rye. Rice.	Corn. Oats. Barley. Hay.			Apples. Pears. Peaches. Strawberries. Grapes. Oranges. Lemons. Grapefruit.	Cauliflower. Green peppers. Snap beans. Cabbage. Celery. Carrots. Lettuce. Onions. Green peas. Spinach. Tomatoes.	Peanuts. Soybeans. Flaxseed. Cottonseed.	Dry beans. Potatoes. Sweet potatoes.

[1] Not shown separately in the index, but included.

Livestock and products

Meat animals	Dairy products	Poultry and eggs	Wool [1]
Hogs. Cattle. Calves. Sheep. Lambs.	Wholesale milk. Retail milk. Butter. Butterfat.	Chickens. Turkeys. Eggs.	

[1] Not shown separately in the index, but included.

To adequately determine the relative position of the average price of crops and livestock it is important to have separate indexes for these two main groups. The recent increasing importance of domestic oil crops made it desirable to set up a separate index for these commodities. With cottonseed now included in the oil-crop group a separate index is shown for cotton

tant source of farm income a separate index is now shown for it. Potatoes, sweetpotatoes and dry beans are not listed separately but are included in the all-crop and all-commodity indexes. The old miscellaneous index has been dropped.

The over-all index on the new basis does not vary significantly in trend or many months in the new series have been somewhat above the old since 1926. In December 1943 the two series were practically at the same level, the old standing at 197 of the 1909–14 base, while the new was at 196.

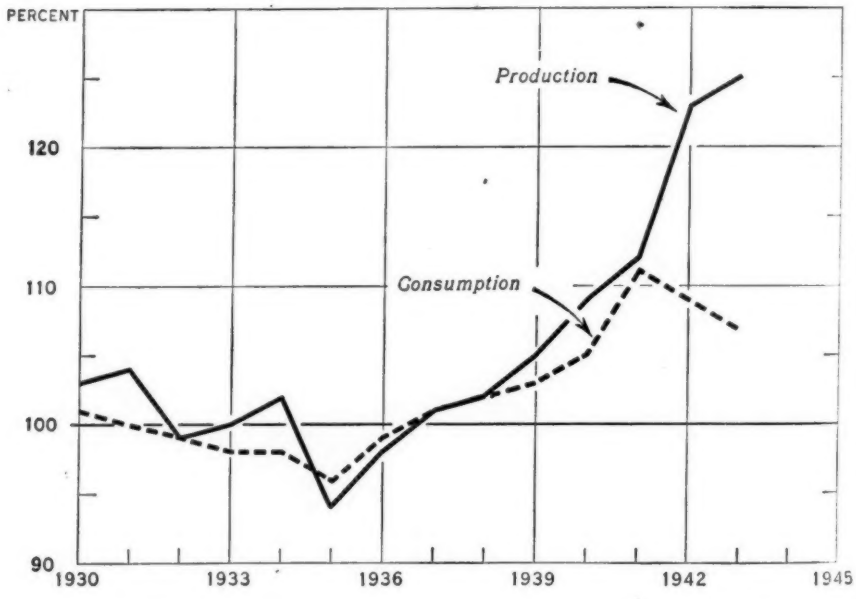
RALPH S. WOODRUFF
Bureau of Agricultural Economics

Nutritive Value of U.S. Food Supply, 1930–43

The charts on these two pages show the trends in United States food production and consumption as well as the nutritive value of the foods consumed. In brief—production, consumption, and nutritive value all moved upward from the middle thirties until 1942 when the war reversed the trend in total civilian consumption and in some nutrient intake. Recent enrichment of bread and flour, however, has materially increased the quantities of iron and B vitamins available in the civilian food supply. And greater milk consumption has resulted in an

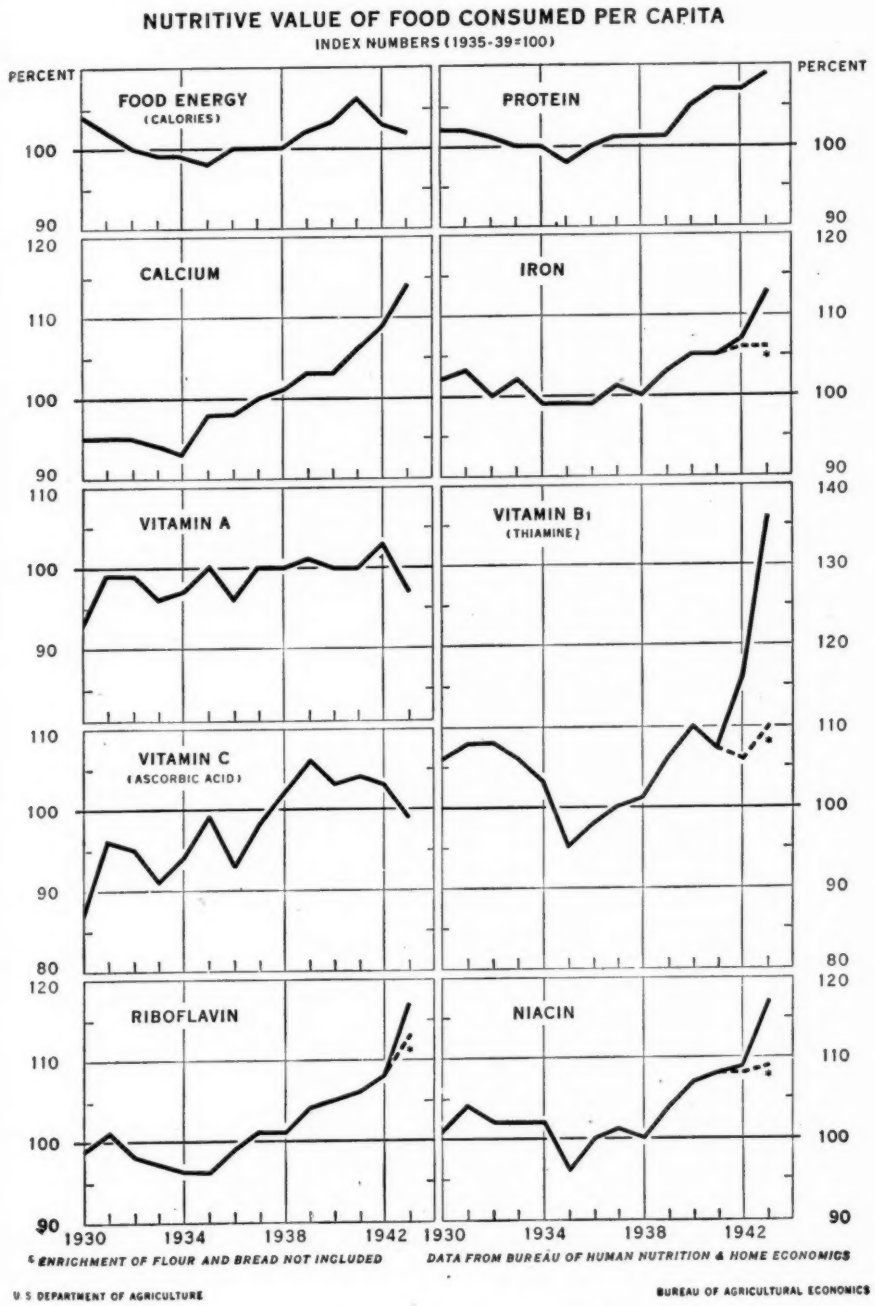
PER CAPITA PRODUCTION AND CONSUMPTION OF FOODS IN THE UNITED STATES, 1930-43

INDEX NUMBERS (1935-39=100)



U. S. DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL ECONOMICS

upward trend since 1934 in both calcium and riboflavin intake. A fuller discussion of these trends appeared in *the Agricultural Situation* for January 1944. Some of the figures cited in that article, however, have been revised slightly for these charts. Estimates for 1943 are preliminary and subject to further revision. Per capita consumption of some nutrients, particularly vitamins A and C, may be underestimated for 1942 and 1943, since official data on vegetable production does not include victory garden production in towns and cities.



Year and month	Industrial production (1935–39 =100)[1]	Income of industrial workers (1935–39 =100)[2]	1910–14=100				Index of prices received by farmers (August 1909–July 1914=100)[4]			
			Wholesale prices of all commodities[3]	Prices paid by farmers		Farm wage rates	Livestock and products			
				Commodities	Commodities, interest and taxes		Dairy products	Poultry and eggs	Meat animals	All livestock
1934	75	76	109	122	129	95	101	89	70	84
1935	87	86	117	125	130	103	114	116	116	115
1936	103	100	118	124	128	111	125	114	118	120
1937	113	117	126	131	134	126	130	110	132	127
1938	89	91	115	123	127	125	114	108	115	113
1939	109	105	113	121	125	123	110	95	112	108
1940	125	119	115	122	126	126	119	96	111	112
1941	162	169	127	131	133	154	139	121	146	140
1942	199	238	144	152	151	201	162	151	188	173
1943	239	304	151	167	164	264	193	190	209	200
1943—January	227	281	149	160	157	224	188	186	206	197
February	232	287	150	162	159	-------	190	172	216	199
March	235	295	151	163	160	-------	190	172	220	201
April	237	300	151	165	162	239	190	174	220	202
May	238	302	152	167	163	-------	189	175	216	200
June	236	304	152	168	164	-------	187	179	213	199
July	240	306	151	169	165	274	189	183	209	198
August	242	312	151	169	165	-------	192	192	208	200
September	[6] 245	[6] 315	151	169	165	-------	195	201	208	203
October	247	[6] 317	150	170	166	280	198	212	204	204
November	247	318	150	171	167	-------	202	219	193	201
December	[6] 241	316	151	173	169	-------	203	212	194	200
1944—January	242	----------	-------	174	169	275	201	177	194	193
February	----------	----------	-------	175	170	-------	201	168	199	194

Year and month	Index of prices received by farmers (August 1909–July 1914=100)[4]									Parity ratio[5]
	Crops								Crops and livestock	
	Food grains	Feed grains and hay	Tobacco	Cotton	Oil bearing crops	Fruits	Truck crops	All crops		
1934	91	95	159	97	95	88	95	98	90	70
1935	97	107	174	94	120	82	119	102	109	84
1936	108	102	165	95	112	92	104	107	114	89
1937	120	125	204	90	120	104	110	115	122	91
1938	75	71	176	67	88	70	88	80	97	76
1939	72	69	155	70	90	68	91	80	95	76
1940	84	82	136	77	96	73	111	88	100	79
1941	97	89	159	107	130	85	129	106	124	93
1942	120	111	252	149	172	114	163	142	159	105
1943	148	147	325	160	190	179	245	183	192	117
1943—January	138	124	317	159	174	121	247	164	181	115
February	140	129	316	159	177	132	241	167	184	116
March	143	135	317	161	183	142	326	182	192	120
April	143	141	316	162	185	162	364	192	197	122
May	144	144	319	162	187	170	276	187	194	119
June	145	148	320	161	187	196	261	190	195	119
July	147	151	321	158	183	216	220	188	193	117
August	147	152	326	160	196	202	186	183	192	116
September	150	156	315	163	199	205	180	182	193	117
October	157	158	335	164	201	195	187	183	194	117
November	160	158	347	156	202	196	228	187	194	116
December	166	165	349	160	202	208	223	192	196	116
1944—January	170	168	350	162	203	204	267	199	196	116
February	170	169	848	161	205	206	247	196	195	115

[1] Federal Reserve Board, adjusted for seasonal variation, revised November 1943.
[2] Total Income, adjusted for seasonal variation, revised March 1943.
[3] Bureau of Labor Statistics. [4] Revised, see discussion of revised index on page 20.
[5] Ratio of prices received to prices paid, interest and taxes. [6] Revised.

NOTE.—The index numbers of industrial production and of industrial workers' income shown above are not comparable in several respects. The production index includes only mining and manufacturing; the income index also includes transportation. The production index is intended to measure volume, whereas the income index is affected by wage rates as well as by time worked. There is usually a time lag between changes in volume of production and workers' income, since output can be increased or decreased to some extent without much change in the number of workers.

U. S. GOVERNMENT PRINTING OFFICE: 1944